

## REMARKS

Claims 1-11 are pending. Claim 1 has been amended. Claim 12 has been added. No new matter has been added by way of this amendment. Reconsideration of the application is respectfully requested.

Claims 1-8, and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,891,258 to *Fahrenkrug* in view of U.S. Patent No. 5,268,213 to *Murakami et al.* For the following reasons, this rejection is respectfully traversed.

U.S. Patent No. 4,891,258 to *Fahrenkrug* relates to a stretchable absorbent composite for receiving, absorbing and retaining liquids and waste materials comprising a liquid-pervious layer, a liquid-impervious layer, an absorbent layer, and a liquid-pervious stretchable layer between the liquid-pervious layer and liquid-impervious layer. According to this patent, the stretchable layer is stretch-bonded to the other layers and forms a plurality of rugosities in the other layers upon relaxing the stretchable layer (see col. 1, lines 40-49).

Set forth in on page 4 through page 5 of the Office Action is the statement that:

“*Fahrenkrug* teaches that the liner can be a nonwoven or plastic film. Therefore, because these two materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the plastic film or resin of the ribs (strips) for a nonwoven material ... [and] ... It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the liquid pervious layer and provide it with ribs (strips) with the motivation of providing the sheet surface with direction control diffusion as disclosed by *Murakami et al.*”

However, Applicants respectfully disagree with the foregoing statement for the following reasons.

U.S. Patent No. 5,268,213 to *Murakami* et al. is directed to controlling in a predetermined direction the flow of body fluid that generally occurs on a liquid-permeable topsheet for body fluid absorbent article (see Abs.). As set forth on page 4 of the Office Action, this patent discloses a liquid-pervious topsheet made of thermoplastic resin for fluid absorbent articles, in which ribs in a first direction and ribs in a second direction cross one another to thereby define openings. The ribs that extend in the first direction of *Murakami* et al. may be construed as parallel strips. Hence, if the liquid pervious topsheet of *Murakami* et al. is used as the liner of *Fahrenkrug*, each rib (strip) will be fixed to the elastomeric layer 6 including apertures 12 (porous film) at spaced fixing portions, and the elastomeric layer 6 will be exposed between adjacent ribs (strips).

However, the liquid-pervious topsheet of *Murakami* et al. is not a fibrous material. In col. 3, lines 10-12, *Murakami* et al. states that "This topsheet 1 can be obtained by thermoforming suitable thermoplastic sheet such as polyethylene sheet." From the description of *Murakami* et al., it is not clear whether the thermoplastic sheet is a nonwoven or plastic film. However, in the event that a nonwoven fabric is used for the topsheet 1, its constituent fibers will completely lose their fiber shape as the sheet becomes greatly deformed to have openings by thermoforming, as shown in Figs. 1, 3, and 4. Therefore, Applicants respectfully assert that the resultant topsheet cannot be "fibrous," even when a nonwoven fabric is used as the material for the sheet.

In the present invention, moreover, the strips are completely separate from each other at predetermined spacing intervals, as shown in the drawings, and as set forth in amended claim 1. This limitation has been included in claim 1 because the strips of the present invention need to deform enough to permit them to follow any motion of a wearer's skin.

On the other hand, the ribs (strips) of *Murakami et al.* that extend in the first direction are not completely separate from each other, but are connected to each other via the ribs that extend in the second direction. As a result, the ribs that are connected together in this manner are too rigid to follow the motion of a wearer's skin.

It follows that because the ribs of *Murakami et al.* are not completely separate from each other and are non fibrous, the present invention as claimed is not obvious over the combination of the *Fahrenkrug* and *Murakami et al.* patents. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

In view of the patentability of amended independent claim 1 for the reasons set forth above, dependent claims 2-11 are also patentable over the cited references.

Claims 12 recites that "each strip is a bundle of continuous filaments opened from a tow or a bundle of thin strips cut out from a non-woven fabric." When thus formed, the feel of the article to the human skin can be significantly improved because the filaments or strips are permitted to move independently from each other in a limited area between adjacent fixing portions. In contrast to the invention set forth in new claim 12, if the filaments or strips are subjected to thermoforming as set forth in the *Murakami et al.*, such independent movement of the ribs (strips) cannot be obtained. Accordingly, Applicants respectfully maintain that newly added dependent claim 12 is also patentable over the cited prior art.

Based on the foregoing amendments and remarks, this application should be in condition for allowance. Early passage of this case to issue is respectfully requested. However, if there are any questions regarding this Response, or the application in general, a telephone call to



## COMPLETE SET OF PENDING CLAIMS

1. (Amended) An absorbent article comprising:

a liquid permeable surface layer;

a backing sheet; and

an absorbent layer interposed between said surface layer and said backing sheet,

said surface layer including: a porous film having a plurality of through holes; and a fibrous layer disposed on the liquid-receiving face of said porous film, said fibrous layer being of a plurality of strips extending in parallel and completely separate from each other at predetermined spacing intervals, each strip of said fibrous layer being fixed to said porous film at spaced fixing portions, so that said porous film is exposed between adjacent strips of said fibrous layer.

2. The absorbent article as set forth in claim 1, wherein said fixing portions are spaced apart from each other in a direction along which said strips of said fibrous layer extend, and each strip is raised between adjacent fixing portions away from the porous film, to form a plurality of loop portions.

3. The absorbent article as set forth in claim 1, wherein said porous film is contracted in the direction along which said strips of said fibrous layer extend, after said strips are fixed to said porous film, for reducing the pitch between adjacent fixing portions for raising said loop portions.

4. The absorbent article as set forth in claim 3, wherein said porous film is formed of a stretchable synthetic resin film.

5. The absorbent article as set forth in claim 3, which further comprises an elastic member fixed on said porous film, for providing contracting force to said porous film.

6. The absorbent article as set forth in claim 3, wherein said porous film is formed of a heat-shrinkable synthetic resin film.

7. The absorbent article as set forth in claim 4, wherein said through holes are opened in a quadrangular shape, so that said porous film is formed with separation strips separating adjacent quadrangular through holes, said separation strips extending oblique relative to the direction along which said strips of said fibrous layer extend.

8. The absorbent article as set forth in claim 2, wherein a total length  $L$  along the outermost surface of each loop portion, between adjacent fixing portions, is in a range of 1.1 to 4 times of a pitch  $P$  between adjacent fixing portions.

9. The absorbent article as set forth in claim 1, wherein said fibrous layer is formed of a bundle of continuous filaments.

10. The absorbent article as set forth in claim 1, wherein said fibrous layer is formed of a non-woven fabric.

11. The absorbent article as set forth in claim 10, wherein each strip of said fibrous layer is formed of a bundle of thin strips formed by cutting said non-woven fabric.

12. (New) The absorbent article as set forth in claim 1, wherein each strip of said fibrous layer is a bundle of continuous filaments opened from a tow or a bundle of thin strips cut out from a non-woven fabric.